POWER AMPLIFIER

KAC-424

SERVICE MANUAL

KENWOOD

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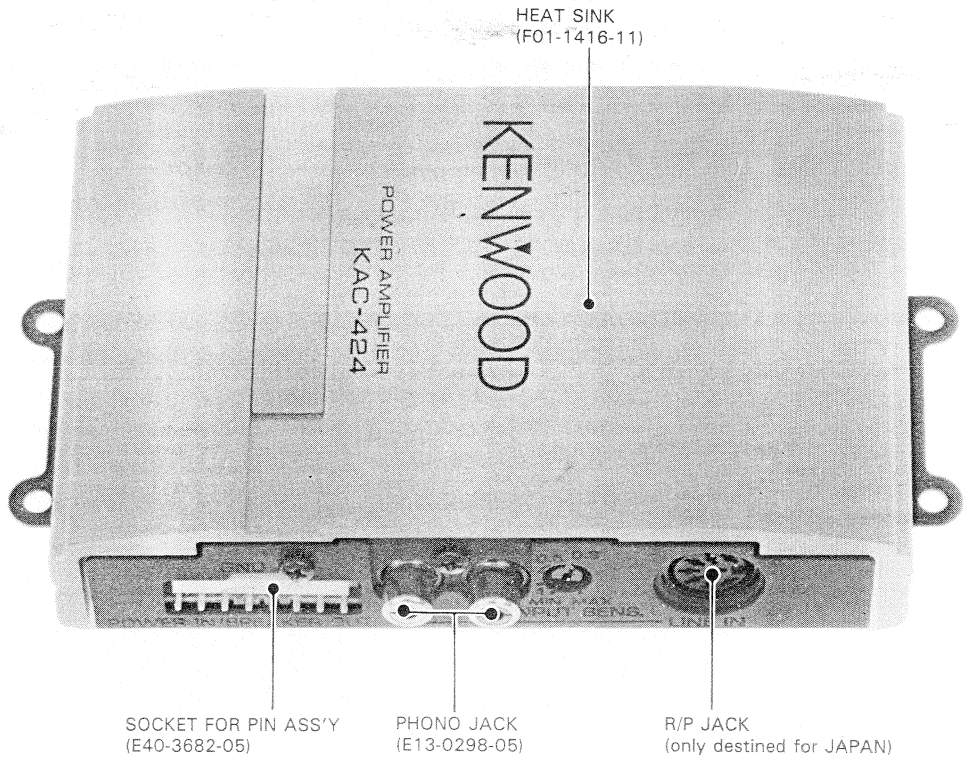
B51-6527-00(MC) 3816



Accessory parts

E type: Europe W type: without Europe

Parts name	E type	W type
DC CORD	E30-3571-15	E30-3570-05
AUDIO (RCA) CORD	E30-4032-05	nothing
SCREW SET	N99-1598-05	N99-1598-05

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CONNECTION

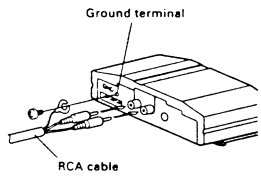
E type: Europe

RCA cable ground lead terminal

- When using an RCA cable with a ground lead attached, connect the ground lead to this terminal.

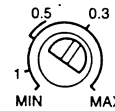
NOTE

Do not use this terminal for power source grounding. This unit will not operate if the power source ground wire is connected to this terminal.



Input sensitivity control

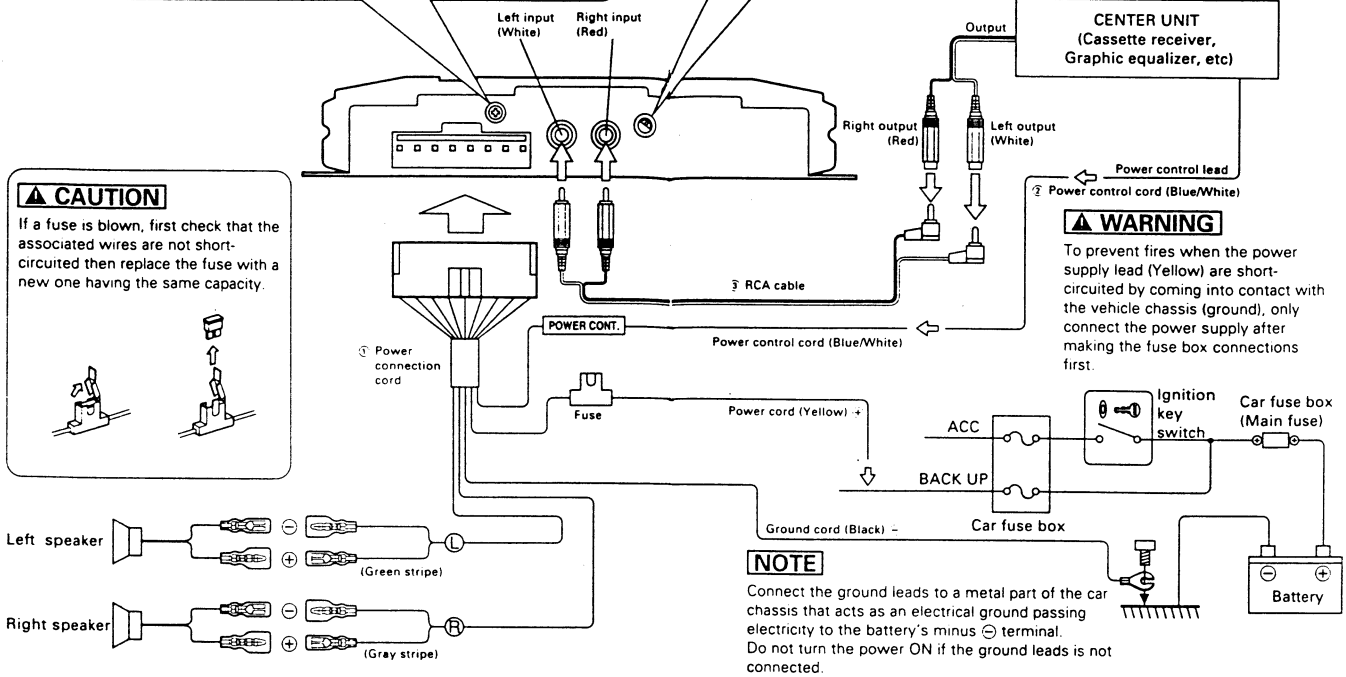
- Adjust the control according to the pre-out level of the center unit connected to this unit.



Center unit pre-out level	Amplifier input sensitivity
300 mV	MAX
800 ~ 1000 mV	0.3 V

NOTE

Refer to "SPECIFICATIONS" on the center unit's instruction manual about the pre-out level.



⚠ CAUTION

If a fuse is blown, first check that the associated wires are not short-circuited then replace the fuse with a new one having the same capacity.

⚠ WARNING

To prevent fires when the power supply lead (Yellow) are short-circuited by coming into contact with the vehicle chassis (ground), only connect the power supply after making the fuse box connections first.

NOTE

Connect the ground leads to a metal part of the car chassis that acts as an electrical ground passing electricity to the battery's minus ⊖ terminal.
Do not turn the power ON if the ground leads is not connected.

W type: without Europe

RCA cable ground lead terminal

- When using an RCA cable with a ground lead attached, connect the ground lead to this terminal.

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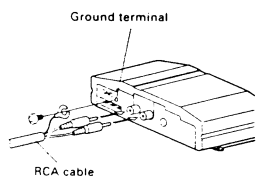
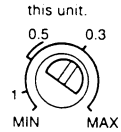
Do not use this terminal for power source grounding. This unit will not operate if the power source ground wire is connected to this terminal.



Input sensitivity control

- Adjust the control according to the pre-out level of the center unit connected to this unit.



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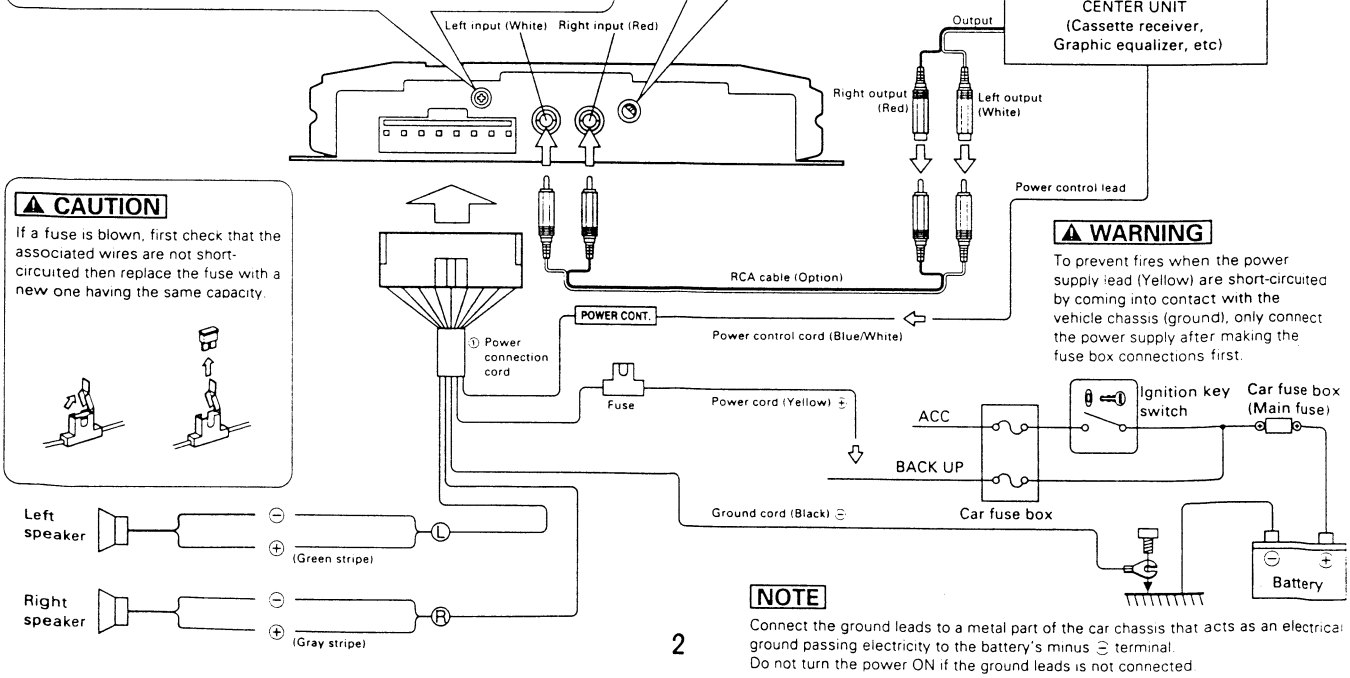
NOTE

Refer to "SPECIFICATIONS" on the center unit's instruction manual about the pre-out level.



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⚠ WARNING

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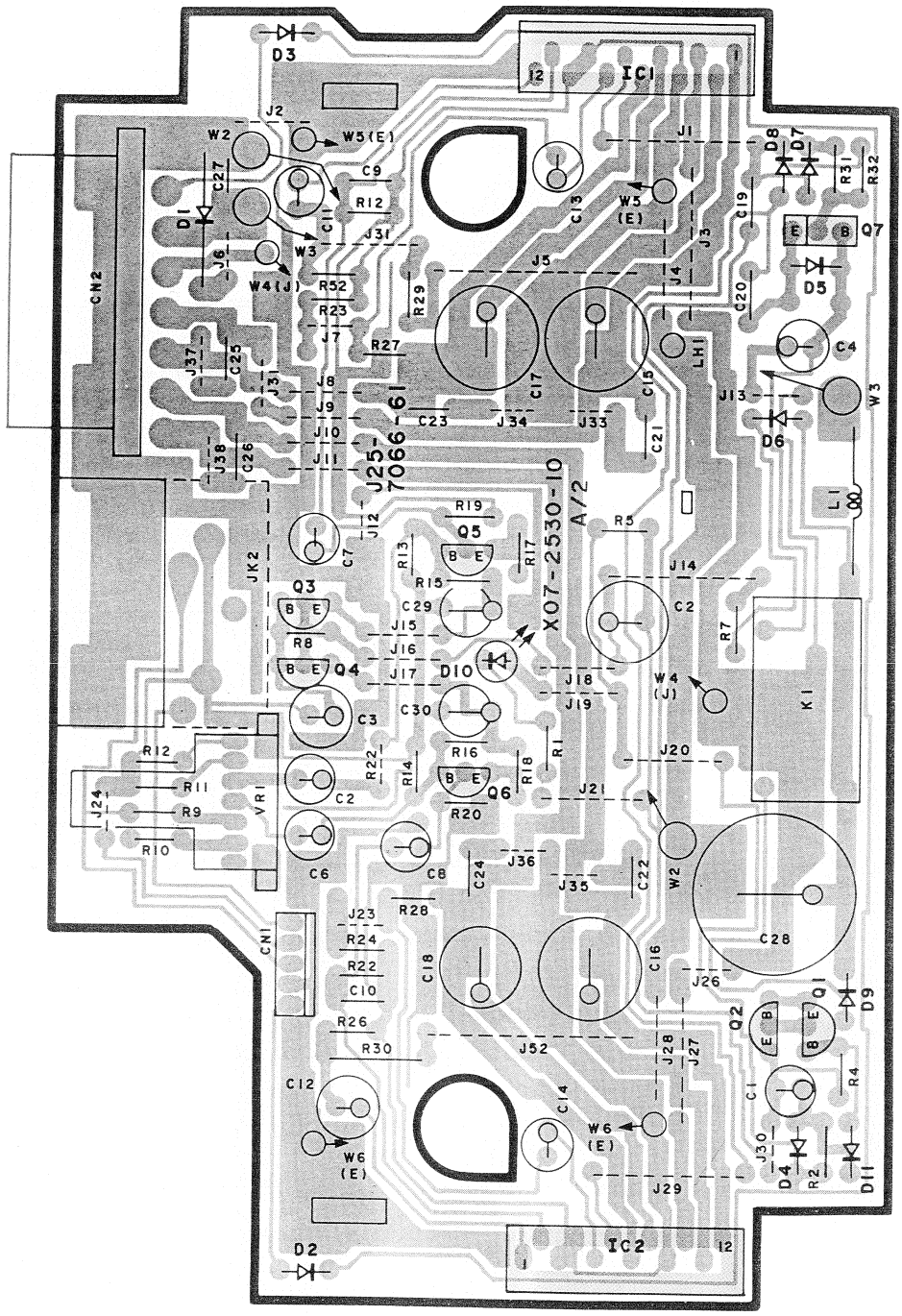
NOTE

Connect the ground leads to a metal part of the car chassis that acts as an electrical ground passing electricity to the battery's minus ⊖ terminal.
Do not turn the power ON if the ground leads is not connected.

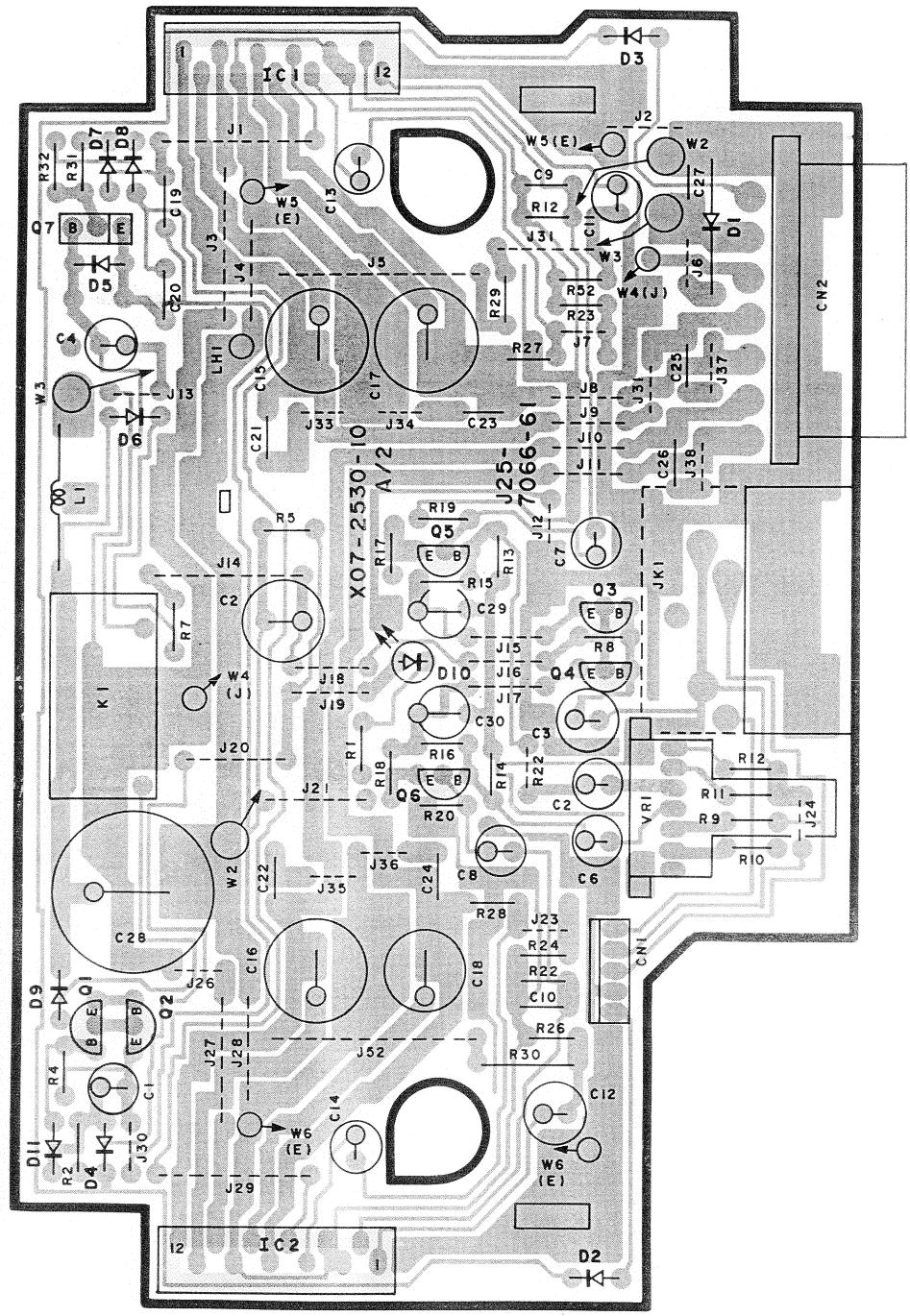
PC BOARD (Component side view)

Ref. No.		Address
IC	Q	
	1	5E
	2	5D
	3	4C
	4	4C
	5	3C
	6	4C
	7	2E
1		2D
2		6D



Refer to the schematic diagram for the values of resistors and capacitors.

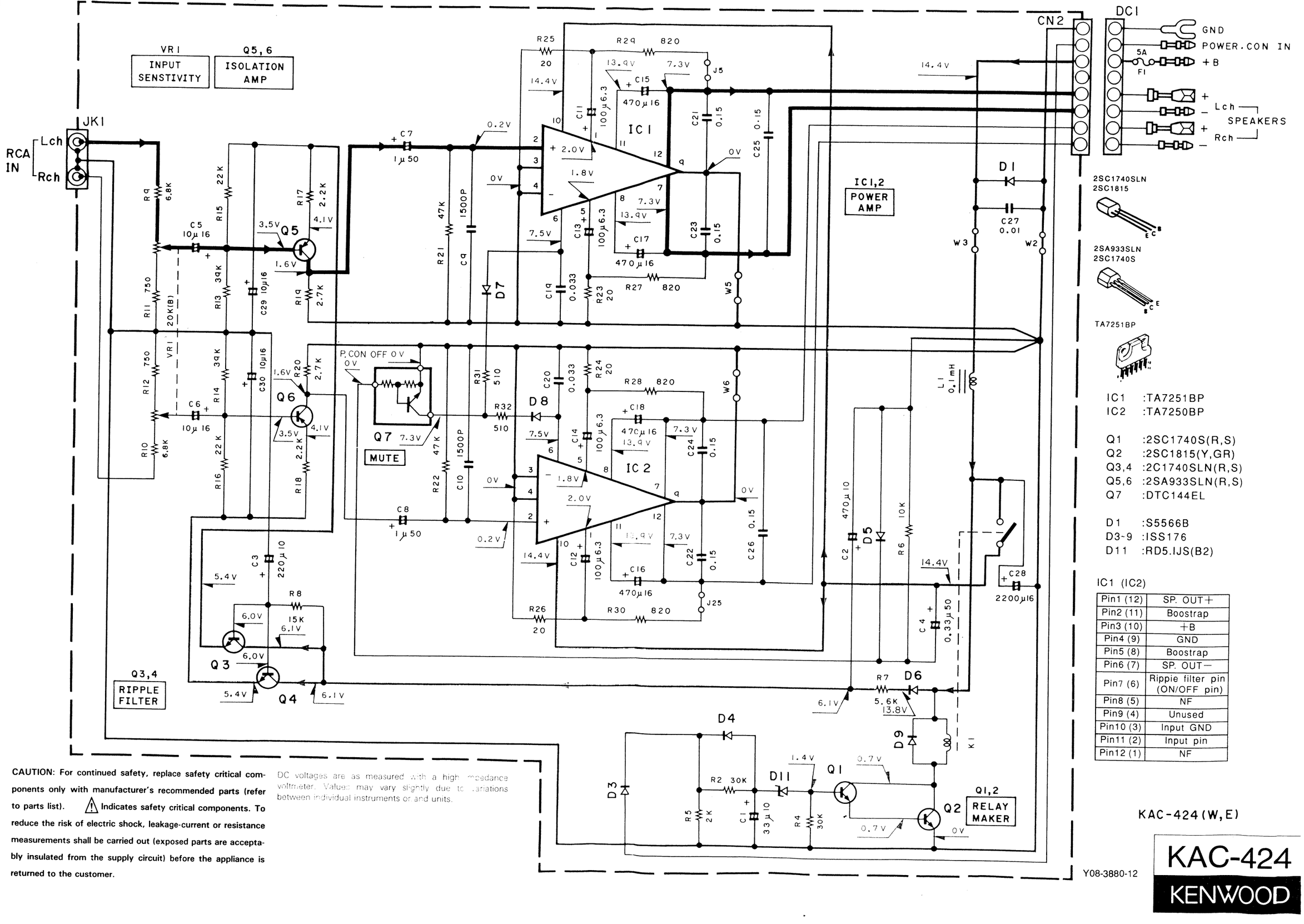
PC BOARD (Foil side view)



Ref. No.		Address
IC	Q	
	1	5F
	2	5F
	3	4H
	4	4H
	5	3G
	6	4G
	7	2F
1		2G
2		6G

Refer to the schematic diagram for the values of resistors and capacitors.

(X07-2530-12) (A/2)



IC1 :TA7251BP
IC2 :TA7250BP

Q1 :2SC1740S(R,S)
Q2 :2SC1815(Y,GR)
Q3,4 :2C1740SLN(R,S)
Q5,6 :2SA933SLN(R,S)
Q7 :DTC144EL

D1 :S5566B
D3~9 :ISS176
D11 :RD5.IJS(B2)

IC1 (IC2)

Pin1 (12)	SP. OUT+
Pin2 (11)	Boostrap
Pin3 (10)	+B
Pin4 (9)	GND
Pin5 (8)	Boostrap
Pin6 (7)	SP. OUT−
Pin7 (6)	Rippie filter pin (ON/OFF pin)
Pin8 (5)	NF
Pin9 (4)	Unused
Pin10 (3)	Input GND
Pin11 (2)	Input pin
Pin12 (1)	NF

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or and units.

KAC-424(W,E)

Y08-3880-12

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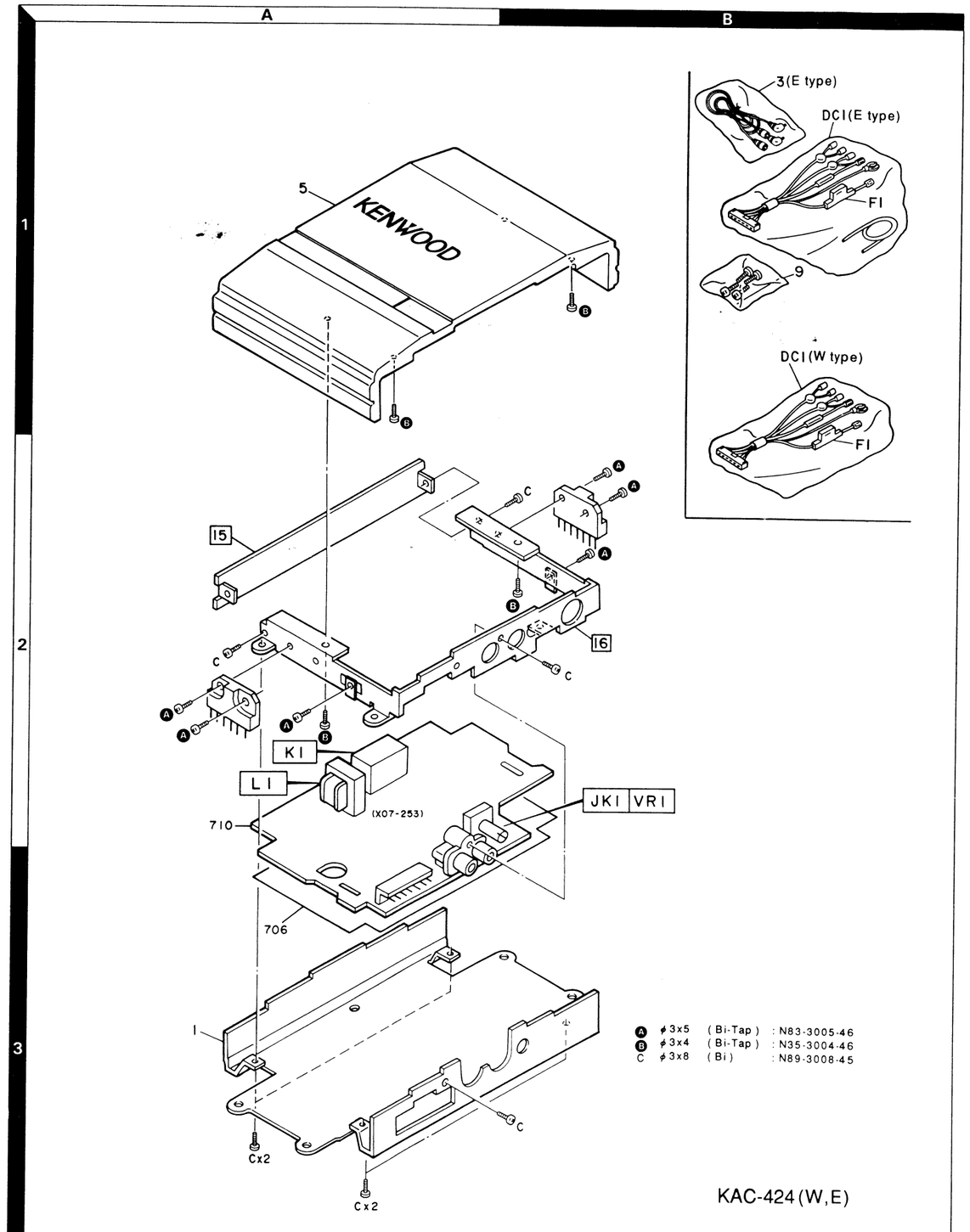
EXPLODED VIEW



KAC-424 (W,E)

7 Parts with the exploded numbers larger than 700 are not supplied.

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PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Telle ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
KAC-424						
1	3A	*	A40-1245-12	BOTTOM PLATE		
-			B46-0100-20	WARRANTY CARD		
-		*	B64-0237-00	INST. MANUAL (ENGLISH ,FRENCH)	W	
-		*	B64-0238-00	INST.MANUAL(EN,FR,GE,IT,DU,SP)	E	
3	1B	*	E30-4032-05	AUDIO CORD	E	
DC1	1B		E30-3570-05	DC CORD (without CABLE)	W	
DC1	1B		E30-3571-15	DC CORD (with CABLE for P.CON)	E	
5	1A	*	F01-1416-11	HEAT SINK		
F1	1B		F06-5024-05	FUSE (5A) in DC CORD		
-		*	H10-4310-13	POLYSTYRENE FOAMED FIXTURE		
-			H12-2517-04	PACKING FIXTURE		
-			H25-0335-04	PROTECT.BAG(150X260X0.03) UNIT		
-			H25-0336-04	PROTECT.BAG(170X250X0.03) INST		
-		*	H54-0002-04	ITEM CARTON CASE		
-		*	H64-0002-04	OUTER CARTON CASE		
9	1B	*	N99-1598-05	SCREW SET		
A	2A,2B		N83-3005-46	PAN HEAD TAPTITE SCREW		
B	1A,1B		N35-3004-46	BINDING HEAD MACHINE SCREW		
C	3A,3B		N89-3008-45	BINDING HEAD TAPTITE SCREW		
POWER AMPLIFIER UNIT (X07-2530-12)						
15	2A	*	A11-0817-04	SUB CHASSIS		
16	2B	*	A11-0878-03	SUB CHASSIS		
C1			CE04DW1A330M	ELECTRO 33UF 10WV		
C2			CE04DW1A471M	ELECTRO 470UF 10WV		
C3			CE04DW1A221M	ELECTRO 220UF 10WV		
C4			CE04DW1HR33M	ELECTRO 0.33UF 50WV		
C5 ,6			CE04DW1C100M	ELECTRO 10UF 16WV		
C7 ,8			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C9 ,10			CK45FB1H152K	CERAMIC 1500PF K		
C11 -14			C90-2512-05	ELECTRO 100UF 6.3WV		
C15 -18			CE04DW1C471M	ELECTRO 470UF 16WV		
C19 ,20			CF92FV1H333J	MF 0.033UF J		
C21 -26			CF92FV1H154J	MF 0.15UF J		
C27			CK45FF1H103Z	CERAMIC 0.010UF Z		
C28			C90-2518-05	ELECTRO 2200UF 16WV		
C29 ,30			CE04DW1C100M	ELECTRO 10UF 16WV		
CN2			E40-3682-05	SOCKET FOR PIN ASSY		
DC1	1B		E30-3570-05	DC CORD (without CABLE)	W	
DC1	1B		E30-3571-15	DC CORD (with CABLE for P.CON)	E	
J5			E31-5000-05	JUMPER WIRE		
J25			E31-5000-05	JUMPER WIRE		
JK1	2B		E13-0298-05	PHONO JACK (2P)		
W2		*	E31-8070-05	LEAD WIRE		
W3		*	E31-8069-05	LEAD WIRE		
W5 ,6		*	E31-4583-05	LEAD WIRE		
F1	1B		F06-5024-05	FUSE (5A) in DC CORD		
LH1			J19-2826-05	HOLDER		
L1	2A		L15-0503-05	LOW-FREQENCY CHOKE COIL (0.1mH		

E : Europe **W** : Without Europe
P : Canada **K** : U.S.A. and Canada
X : Australia
M : Without Europe, U.S.A. and Canada

E: Europe
W: without Europe
⚠ indicates safety critical components.

KAC-424

PARTS LIST

× New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
VR1	2B		R10-3631-05	P0TENTI0METER(20K)		
K1	2A		S51-1611-05	MAGNETIC RELAY		
D1			S5566B	DI0DE		
D3 -9			1SS176	DI0DE		
D11			RD5.1JS(B2)	ZENER DI0DE		
IC1			TA7251BP	IC(AF P0WER AMP)		
IC2			TA7250BP	IC(P0WER AMP)		
Q1			2SC1740S(R,S)	TRANSISTOR		
Q2			2SC1815(Y,GR)	TRANSISTOR		
Q3 ,4			2SC1740SLN(R,S)	TRANSISTOR		
Q5 ,6			2SA933SLN(R,S)	TRANSISTOR		
Q7			DTC144EL	DIGITAL TRANSISTOR		

E : Europe **W** : Without Europe
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E: Europe
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E: Europe
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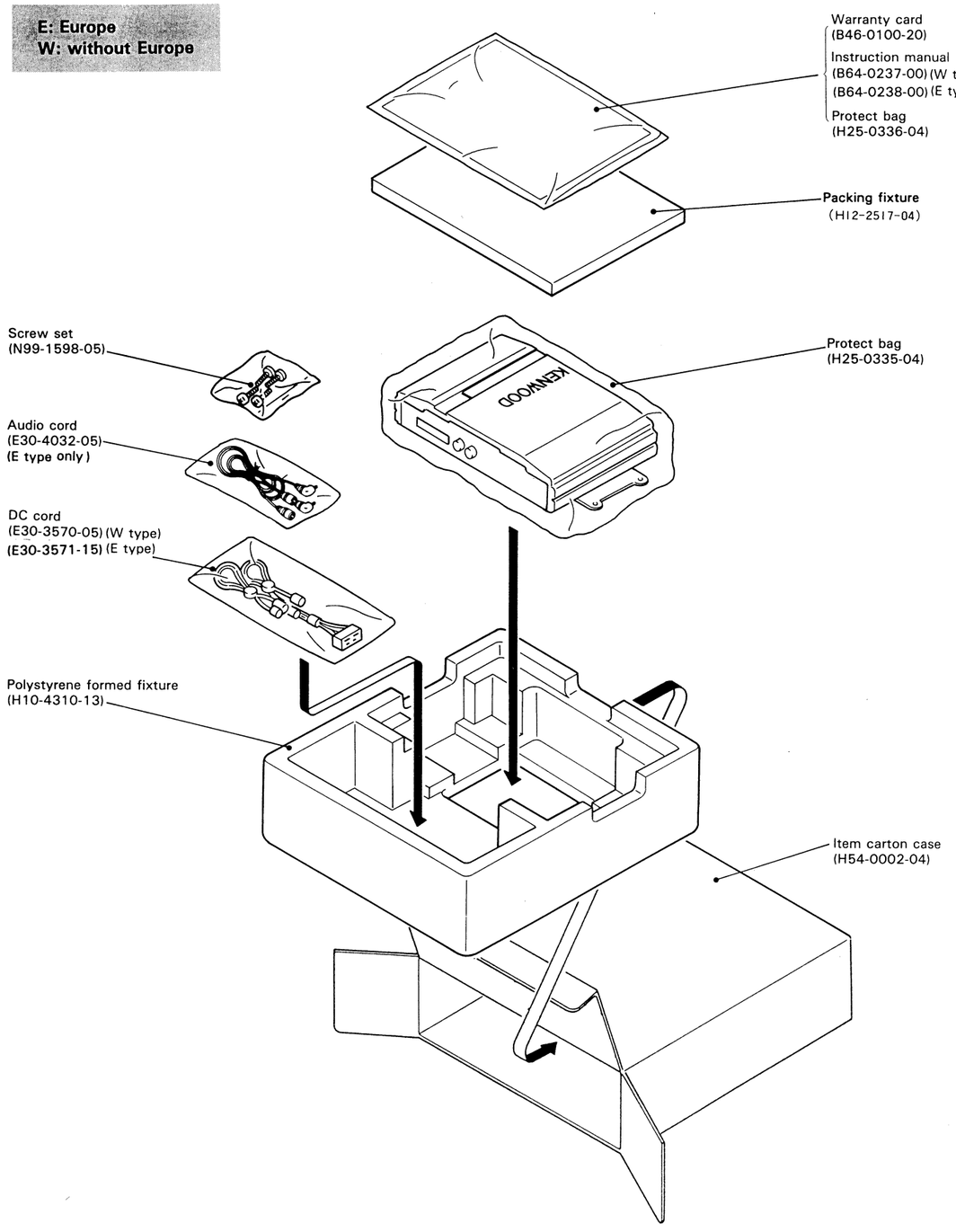

KAC-424

SPECIFICATIONS

Audio Section

Max Power Output	40 W × 2
Rated Power Output	20 W × 2 (4 Ω, 20 Hz ~ 20 kHz, less than 1% THD)
Frequency Response (– 3dB)	6 Hz ~ 40 kHz
Signal to Noise Ratio	100 dB
Sensitivity (rated outoput) MAX.	0.15 V
MIN.	3.0 V
Input Impedance	10 kΩ
Damping Factor (100 Hz)	More than 100

General

Operating Voltage	14.4 V (11 ~ 16 V allowable)
Current Consumption (MAX.)	5 A
Dimensions (W × H × D)	140 × 30 × 90 mm
	(5-1/2 × 1-3/16 × 3-9/16 in.)
Weight	0.5kg (1.1 ld)

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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